



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**REGION 5**  
**77 WEST JACKSON BOULEVARD**  
**CHICAGO, IL 60604-3590**

171932

REPLY TO THE ATTENTION OF:

SE-5J

**MEMORANDUM**

**DATE: SEP 27 2001**

**SUBJECT: ACTION MEMORANDUM - Request for a Time Critical Removal Action at Multiple Deposition Sites, East St. Louis, St. Clair County, Illinois**

**FROM:** Kevin R. Turner, On-Scene Coordinator  
Emergency Response Section 2  
Michael D. Harris, On-Scene Coordinator  
Emergency Response Section 2  
Thomas Cook, On-Scene Coordinator  
Emergency Response Section 3

**TO:** William E. Muno, Director  
Superfund Division

**THRU:** Richard Karl, Chief  
Emergency Response Branch,  
Superfund Division

**I. PURPOSE**

The purpose of this generic action memorandum is to request approval to expend up to \$250,000 to abate an imminent and substantial threat to public health and the environment present at a potentially large number of sites in East St. Louis, St. Clair County, Illinois. Specifically, sampling in the East St. Louis area indicates the widespread presence of uncontrolled hazardous substances, particularly high levels of soil lead contamination, in several if not dozens of small residential or abandoned sites (referred to herein as "Multiple Deposition Sites"). In general, there are no available or viable potentially responsible parties associated with these Multiple Sites and this generic action memo is necessary to enable the Superfund Program to efficiently and effectively mitigate the immediate threat to public health and the environment posed by the high lead levels at these Multiple Sites.

The response action proposed herein will mitigate Site conditions by removal and off-site disposal of the contaminated soil. The high levels of lead in surface soil at concentrations considered hazardous, its proximity to populated residential areas and its availability to small children, pregnant woman and the elderly require that this action be classified as a time critical

removal. The estimated number of working days that the project will require is currently unknown because Sites fitting the criteria of a "Multiple Deposition Site" have not all been fully identified. Once identified, a removal at a single Deposition Site will require an estimated 15 working days to complete.

There are no nationally significant or precedent setting issues associated with the Multiple Deposition Sites. The Multiple Deposition Lead Sites are not on the National Priorities List (NPL).

## **II. SITE CONDITIONS AND BACKGROUND**

In recent sampling activities, the U.S. EPA and the State of Illinois have found lead-contaminated soils in ubiquitous quantities throughout the East St. Louis area. From the early 1900s through the 1960s, the Metro East Area (of which East St. Louis is a part) had a large industrial base that included paint manufacturers and lead and zinc smelters. Both lead and zinc smelters emitted high levels of lead and generated large volumes of lead-contaminated slag. Paint in the 1940s and 1950s sometimes contained up to 80% lead and it suspected that former paint manufacturing operations also contributed to lead contamination in the area. Still, U. S. EPA has not completely identified the sources of lead contamination found at many locations for which investigations are proceeding. U. S. EPA is, however, planning to identify as completely as possible the potential responsible parties that contributed to or caused the high lead levels at any given site within the Metro East Area through information requests and by the preparation of a land use history of the area.

Currently there are four lead sites (Intercoastal Paint Site, Western Forge Works Site, Deranek and Son Site, Eagle Pitcher Residential Lead Site) that are undergoing removal actions by the Removal Branch. These four lead sites, and a number of others, came to the Removal Branch's attention through the Gateway Team. The Gateway Team funded the Illinois Department of Public Health (IDPH) to do soil lead screening in the town of East St. Louis. IDPH targeted former industrial sites in its sampling efforts. The Gateway Team, through the direction of Noemi Emeric, convened an ad hoc group targeting lead as a contaminant of concern for East St. Louis. This group, which included St. Mary's Hospital, collected blood lead data from children in East St. Louis. The Removal Branch became involved based on the IDPH sample results showing high soil lead data in old industrial areas bordering residential areas (as high as 30,000 ppm) and the St Mary's study showing children with elevated blood lead levels.

The problem that is apparent from the above studies and assessments is the vast area which appears to contain elevated levels of lead and the large number of residents, especially children, subject to lead exposure via soil ingestion. In addition, most of the businesses apparently responsible for the lead problem have long since left the area and are no longer in existence. Residences, schools, daycare centers, and parks exist side by side to these potential source areas, which are virtually all abandoned and left unattended and uncontrolled.

### **III. THREATS TO PUBLIC HEALTH, WELFARE, OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES**

The conditions at the Multiple Deposition Sites present an imminent and substantial threat to the public health, or welfare, and the environment and meet the criteria for a removal action provided for in the National Contingency Plan (NCP), Section 300.415, Paragraph (b)(2). 40 C.F.R. § 300.415(b)(2)(I), (iii) and (v), respectively, specifically allows removal actions for:

- 1) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;

The Multiple Deposition Sites are located in mixed residential and commercial areas in the City of East St. Louis, Illinois.

The IDPH sampling documented the presence of lead in soil above health standards both near former industrial sites and in their surrounding neighborhoods. The health concerns at these Sites are related to the elevated levels of lead in soil in residential neighborhoods, and its proximity to schools and other businesses, potentially exposing young children, pregnant women and elderly individuals to high levels of lead contamination.

The effects of lead exposure are more severe for young children and the developing fetus through exposure to a pregnant woman. The harmful effects of lead included premature births, lower birth weight, decreased mental ability in the infant, learning difficulties, and reduced growth in young children. In adults, lead increases blood pressure, induces anemia as a result of the inhibition of hemoglobin synthesis, decreases reaction time, affects memory, and damages the male reproductive system. Lead is also considered by U.S. EPA to be a class B2 or probable human carcinogen. Toxicity information is summarized in the references, ATSDR, 1993 and U.S. EPA, 2000.

Lead was found widespread throughout the Sites, with most of the area above the U.S. EPA Site specific action level of 400 ppm for residential land use scenarios. The highest concentration of lead detected by the IDPH was 30,000. In addition, IDPH conducted blood lead screening within these neighborhoods.

In Illinois, the Illinois Department of Public Health guidelines require that any child with a blood lead level between 10 and 14 µg/dL be tested again in a few months. If the confirmed blood level is at least 15 µg/dL, case follow-up is conducted. St. Mary's Hospital has agreed to take on the responsibility to continue testing within East St. Louis. Blood lead levels from the children in this neighborhood ranged from 0 to 16 µg/dL, with 8 children above 10 µg/dL. IDPH recommends that remediation efforts be initiated on the basis of the high levels of lead found in the surface soils and based upon the number of children in the immediate area who tested above the recommended blood screening levels. Since the neurological effects on young children and

the developing are considered to be irreversible, even short term exposures to elevated lead levels are of a public health concern.

**References:**

ATSDR. 1993. Toxicological Profile for Lead. Agency for Toxic Substances and Disease Registry, Division of Toxicology. Atlanta, GA. U.S. Department of Health and Human Services, Public Health Service.

U.S. EPA. 2000. Integrated Risk Information System (IRIS). Database information located at <http://www.epa.gov/iris/subst/index.htm>; U.S. Environmental Protection Agency.

- 2) Hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate or pose a threat of release;

The IDPH and U.S. EPA XRF and analytical data documented total lead levels to be greater than 5,700 ppm at the surface and greater than 1,900 ppm at a depth of eighteen inches. The U.S. EPA Site Assessments confirmed IDPH sampling results and further documented that elevated levels of lead exist within the residential neighborhood.

Generally, in the East St. Louis area residential neighborhoods have no fences, warning signs, or other barriers to prevent access or warn the public about the hazards of elevated lead levels. Fences that are put up for security are frequently breeched by vandals or others scavenging for recyclable goods. During the April, 2001, U.S. EPA Site Assessments, children were observed playing in yards with no vegetative cover and where elevated soil lead levels were found. The exposure pathways for this Site consist of (1) direct contact with contaminated soil and (2) inhalation of airborne contaminants through windblown particulate matter. Due to the residential nature of this area and a general lack of good ground cover in many yards, people could cause dust particles containing lead to further migrate off site via their activities and into the surrounding residential neighborhoods.

- 3) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;

During the Site Assessments, the OSC observed a large presence of children throughout the residential neighborhoods. IDPH and U.S. EPA have documented that high levels of lead exists on the ground surface and down to eighteen inches. Heavy rains may cause further migration of contaminants off site. Winds could cause dust particles containing heavy metals to migrate into the surrounding community. These weather conditions could result in a continued release of lead described herein to the surrounding soil and air.

- 4) The availability of other appropriate federal or state response mechanisms to respond to the release.

As a member of the East St. Louis Lead Collaborative Partnership, the U.S. EPA has been asked to assist with clean up efforts at the Multiple Deposition Sites. These Sites, as well as other Sites in the area, are a part of a cooperative effort to limit exposure to elevated lead for sensitive populations in East St. Louis. The Illinois Department of Public Health and the U.S. EPA - Region 5 Gateway Initiative asked the U.S. EPA - Region 5, Removal Program to proceed with a time-critical removal action at this residential Site. Neither the State of Illinois nor the City of East St. Louis has the funds to undertake removal of the elevated lead found in this neighborhood.

#### **IV. ENDANGERMENT DETERMINATION**

Given the conditions at the Multiple Deposition Sites, the nature of the hazardous substances on the Sites, and the potential exposure pathways described in Sections II and III above, actual or threatened releases of hazardous substances from Multiple Sites, if not addressed by implementing the response actions selected in this Action Memorandum, present an imminent and substantial endangerment to public health, or welfare, or the environment.

#### **V. PROPOSED ACTIONS AND ESTIMATED COSTS**

The OSC proposes to undertake the following actions to mitigate threats posed by the presence of hazardous substance at the Multiple Deposition Sites:

- 1) Develop and implement a Site Health and Safety Plan, including an air monitoring plan and Site contingency plan;
- 2) Develop and implement a Site security plan;
- 3) Characterize, remove and properly dispose of hazardous substance and wastes (contaminated soils) located at the Site in accordance with U.S. EPA's Off-Site Rule (40 CFR 300.440);
- 4) Backfill the excavated areas with clean material and topsoil. Restore and vegetate to prevent soil erosion;

The OSC Has initiated planning for provision of post-removal Site control consistent with the provisions of Section 300.41 5(I) of the NCP. The nature of this removal action, as well as the complete removal of all hazardous substance from Multiple Sites, will eliminate the need for any post removal Site control.

The detailed cleanup contractor cost estimate is presented in Attachment A and estimated project costs are summarized below:

### REMOVAL PROJECT CEILING ESTIMATE

#### EXTRAMURAL COSTS:

Cleanup Contractor	\$163,866
Cleanup Contractor Contingency (15%)	\$ 24,580
START	\$ 13,200
 Extramural Subtotal	 \$201,646
 Extramural Contingency (20%)	 <u>\$ 40,329</u>
 TOTAL EXTRAMURAL COSTS	 \$241,919

#### INTRAMURAL COSTS:

U.S. EPA Direct Costs	\$ 2,460
\$30 X [(80 Regional Hours)+ 2 HQ Hours]	
 U.S. EPA Indirect Costs	 <u>\$ 5,040</u>
\$63 X (80 Regional Hours)	
 TOTAL INTRAMURAL COSTS	 \$ 7,500
	=====
TOTAL REMOVAL PROJECT CEILING ESTIMATE	\$249,419

The response actions described in this memorandum directly address the actual or threatened release at Multiple Sites of a hazardous substance, or of a pollutant, or of a contaminant which may pose an imminent and substantial endangerment to public health or welfare or to the environment. These response actions do not impose a burden on affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

#### Applicable or Relevant and Appropriate Requirements

All applicable, relevant, and appropriate requirements (ARARs) will be complied with to the extent practicable. A letter was sent on August 14, 2001 to Bruce Everetts of the Illinois EPA requesting that the Illinois EPA identify State ARARs. Any State or federal ARARs identified in a timely manner for this removal action will be complied with to the extent practicable.

**VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN**

Continued risk to public health and the environment will result if no action or delayed action ensues.

**VII. OUTSTANDING POLICY ISSUES**

None.

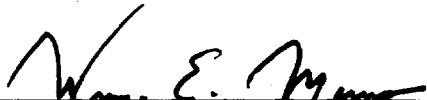
**VIII. ENFORCEMENT**

For administrative purposes, information concerning the enforcement strategy for this Site is contained in an Enforcement Confidential Addendum (see Attachment B).

**IX. RECOMMENDATION**

This decision document represents the selected removal action for the Multiple Deposition Sites, East St. Louis St. Clair County, Illinois, developed in accordance with CERCLA as amended, and is not inconsistent with the NCP. This decision is based on the Administrative Record for the Site (see Attachment C). Conditions at the Site meet the criteria of the NCP, 40 C.F.R. § 300.415 (b)(2) for a removal action, and we recommend your approval of the proposed removal action. The total estimated project ceiling, if approved, will be \$249,419. Of this, an estimated \$188,446 may be used for cleanup contractor costs. You may indicate your decision by signing below:

APPROVE: \_\_\_\_\_



Superfund Division Director

DATE: \_\_\_\_\_

9/27/01

DISAPPROVE: \_\_\_\_\_

Superfund Division Director

DATE: \_\_\_\_\_

**Attachments:**

- A. Detailed Cleanup Contractor Estimate
- B. Enforcement Confidential Addendum
- C. Administrative Record Index

cc:

C. Stanton, U.S. EPA HQ, 5202G  
 M. Chezick, U.S. Department of Interior, w/o Enf. Addendum  
 B. Everetts, IL EPA, w/o Enf. Addendum  
 R. Cipriano, IL EPA, w/o Enf. Addendum  
 S. Davis, IL DNR, w/o Enf. Addendum

bcc: A. Marouf, SR-6J,  
J. Finn, SRT-5J, **w/o Enf. Addendum**  
B. Bolen, SE2-5J  
R. Karl, SE-5J  
W. Messenger, SE-5J  
M. Johnson, ATSD-4J, **w/o Enf. Addendum**  
Public Affairs, P-19J, **w/o Enf. Addendum**  
ERB Read File (C. Beck), SE-5J  
ERB Delivery Order File (C. Norman), SE-5J  
ERB Site File (M. Bedford, SF Central File Room), SMR-7J  
R. Dumelle, Contracting Officer, MCC-10J, **w/o Enf. Addendum**  
M. Harris, SE-5J  
T. Cook, SE-5J  
K. Turner, SE-5J  
T. Martin, C -14J  
V. Mullins, SE-5J



**Attachment A**  
**DETAILED CLEANUP CONTRACTOR ESTIMATE**  
**MULTIPLE DEPOSITION SITES**  
**EAST ST. LOUIS, ST. CLAIR COUNTY, ILLINOIS**  
**AUGUST 2001**

The estimated cleanup contractor costs necessary to complete the removal action at the Multiple Deposition Sites are as follows:

Personnel	\$73,380.32
Equipment	42,410.60
Subcontractors	15,225.00
Transportation and Disposal	<u>\$32,850.00</u>
<b>TOTAL</b>	<b>\$163,865.92</b>

## ENFORCEMENT ADDENDUM

Multiple St. Clair County Sites  
East St. Louis, Illinois  
SEPTEMBER 2001

### ENFORCEMENT CONFIDENTIAL NOT SUBJECT TO DISCOVERY

Targeted multiple sites in St. Clair County were discovered to contain lead contamination. The targets are actively being investigated. The investigations include their past industrial history and some of the following: Site profiles are being established to categorize the magnitude of liability from owners, operators, and transporters. County records are being researched to determine which property taxes were assessed against owners whose names do not match those recorded on property deeds. In an effort to clarify joint and several CERCLA liability, site title searches are being reviewed to reconstruct a timeline to cross reference against when authorities became aware of the lead contamination and who had ownership of a specific property. Financial searches are done from the names identified as owners and operators. Only one potentially responsible party is willing to perform and finance cleanup activities at their site. The enforcement team has helped negotiate a voluntary clean up of that site. There are back yards of private residences that are contaminated with lead where no enforcement is anticipated because of U.S. EPA policy not to pursue private property in use for purely residential purposes. Most of the target properties are vacant lots with no structures, nor easily traceable viable businesses.

There has been some breakthrough on identifying liable characters and entities. Large volumes of records were recently discovered that need to be sifted through. In the past with other sites, abandoned documents of company records helped the enforcement team to connect the person who, at the time of the disposal, was the owner of the property; the person who arranged for the disposal or treatment of the hazardous waste; and/or the transporter who transported the hazardous substances to the facility.

Although most of the sites will have their clean up fund financed, U.S. EPA will take appropriate enforcement action against any viable potentially responsible parties.

**ATTACHMENT C****U.S. ENVIRONMENTAL PROTECTION AGENCY  
REMOVAL ACTION****ADMINISTRATIVE RECORD  
FOR  
MULTIPLE DEPOSITION SITES  
EAST ST. LOUIS, ST. CLAIR COUNTY, ILLINOIS****ORIGINAL  
SEPTEMBER 24, 2001**

<b><u>NO.</u></b>	<b><u>DATE</u></b>	<b><u>AUTHOR</u></b>	<b><u>RECIPIENT</u></b>	<b><u>TITLE/DESCRIPTION</u></b>	<b><u>PAGES</u></b>
1	12/18/95	Tiebout, D. & T. Kouris, Ecology and Environment,	Borries, S., U.S. EPA	Letter re: Summary of Residential Soil Sampling Results for the Gateway Initiative Project in East St. Louis	121
2	06/14/01	Tetra Tech EM, Inc.	U.S. EPA	Site Assessment Report for the Deranek and Son Site	52
3	06/14/01	Tetra Tech EM, Inc.	U.S. EPA	Site Assessment Report for the Eagle Pitcher Residential Site	52
4	06/14/01	Tetra Tech EM, Inc.	U.S. EPA	Site Assessment Report for the Intercoastal Paint Site	44
5	06/14/01	Tetra Tech EM, Inc.	U.S. EPA	Site Assessment Report for the Western Forge Works Site	52
6	00/00/00	Turner, K., M. Harris & T. Cook, U.S. EPA	Muno, W., U.S. EPA	Action Memorandum: Request for a Time Critical Removal Action at the Multiple Deposition Sites in East St. Louis (PENDING)	



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

SE-5J

**MEMORANDUM**

**DATE:** **SEP 27 2001**

**SUBJECT:** ACTION MEMORANDUM - Request for a Time Critical Removal Action at Multiple Deposition Sites, East St. Louis, St. Clair County, Illinois

**FROM:** Kevin R. Turner, On-Scene Coordinator  
Emergency Response Section 2  
Michael D. Harris, On-Scene Coordinator  
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Thomas Cook, On-Scene Coordinator  
Emergency Response Section 3

**TO:** William E. Muno, Director  
Superfund Division

**THRU:** Richard Karl, Chief  
Emergency Response Branch,  
Superfund Division

**I. PURPOSE**

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*2FA Act*  
*ERB*

*9/27/01*

*Jim Atkins for LW*  
*6253 9/27/01*

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 50% Recycled Paper (20% Postconsumer)

*Approved*  
*WEM*  
*9/27/01*

**REMOVAL PROGRAM  
ACTION MEMORANDUM  
ROUTING SLIP**

Multiple Deposition Sites  
(Site Name)

Don't forget to sign the yellow!

- 1) ON-SCENE COORDINATOR (MC SE-5J or SE-GI) [Signature] 9/21/01  
(Assures that Enforcement Confidential Addendum from the Enforcement Specialist is included; the Administrative Record (AR) Documents are available and the draft AR Index is included)
- 2) ADMINISTRATIVE RECORDS COORDINATOR (MC SMR-7J) [Signature] 9/24/01  
(Jan Pfundheller: Assures that the AR is complete and the "Official AR Index" is included...1-day turnaround)
- 3) SECRETARY, RS I/II/III (MC SE-5J or SE-GI) D.G. 9/27/01  
(RS-I Secretary (Grosse Isle) will mail AM to RS-III Secretary for tracking purposes...1-day turnaround)
- 4) OFFICE OF REGIONAL COUNSEL: (C-14-I) [Signature] 9/25/01  
STAFF ATTORNEY (T. Maerz) [Signature] 9/26/01  
ORC SUPERVISOR ([Signature]) [Signature] 9/26/01  
(3-day turnaround on this document per the ORC-WMD Memorandum of Understanding)
- 5) CHIEF, RS I/II/III (MC SE-5J or SE-GI) [Signature] 9/25/01  
(3-day turnaround)
- 6) CHIEF, ERB (MC SE-5J) (Rick Karl) [Signature] 9/27/01  
(3-day turnaround)
- 7) ERB SECRETARY (LOG-OUT) (MC SE-5J) [Signature] 9/27/01  
(1-day turnaround)
- 8) DIRECTOR, SUPERFUND DIVISION (William Muno) [Signature] 9/28/01  
(MC S-6J)
- 9) FINAL PROCESSING: MC SE-5J  
TO RS-II SECRETARY (For RS-II Action Memos)  
TO RS-III SECRETARY (For RS-I and RS-III Action Memos)

(Original Action Memo, yellow copy, and this sheet are filed in ERB Site File. Photocopies of signed original go to OSC and to D.O. File (with D.O. and P.R.); bcc's are distributed.)